L1 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:1262014 CAPLUS
TITLE: The prevention of peritoneal adhesions by in situ cross-linking hydrogels of hyaluronic acid and cellulose derivatives
AUTHOR(S): Ito, Taichi; Yeo, Yoon; Highley, Christopher B.; Bellas, Evangelia; Benitez, Carlos A.; Kohane, Daniel S.
CORPORATE SOURCE: Department of Chemical Engineering, Massachusetts, Institute of Technology, 45 Carleton St., Cambridge, MA, 02142, USA
SOURCE: Biomaterials (2007), 28(6), 975-983
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Post-operative peritoneal adhesions can cause pelvic pain, infertility, and potentially lethal bowel obstruction. We have designed and synthesized injectable hydrogels that are formed by mixing hydrazide-modified hyaluronic acid (HA) with aldehyde-modified versions of cellulose derivs. such as CM-cellulose (CMC), hydroxypropylmethylcellulose (HPMC), and methylcellulose (MC). Gelation of these hydrogels occurred in less than 1 min, and had higher shear moduli than that of HA-HA gel (HAX). Hydrogels degraded in the presence of hyaluronidase in vitro, with HA-MC and HA-HPMC degrading more slowly than HAX and HA-CMC. The aldehyde-modified cellulose derivs. showed dose-dependent mild-to-moderate cytotoxicity to mesothelial cells and macrophages in vitro, but all were biocompatible in the murine peritoneum, causing no adhesions for 3 wk. All the cellulose-derived gels showed efficacy in reducing the area of adhesion formation in a rabbit sidewall defect-bowel abrasion model.

L1 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:486150 CAPLUS
DOCUMENT NUMBER: 144:474976
TITLE: Triple natural polymer viscoelastic composition
INVENTOR(S): Jafari, Masoud R.; Markwardt, Kerry L.; Weiner, Alan L.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006110459	A1	20060525	US 2005-284874	20051122
WO 2006058109	A1	20060601	WO 2005-US42523	20051122

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-630584P P 20041123

AB By combining glucosamine sulfate ("GS"), sodium hyaluronate ("HA") and chondroitin sulfate ("CS"), the triple natural polymer viscoelastic compns. of this invention can provide a viscoelastic agent at a surgical site that not only serves as a protective agent to ocular tissues, but that can also act as an agent to alleviate pain and inflammation associated with ocular surgery. Embodiments of this invention can comprise GS combined with existing HA/CS viscoelastic agents. Embodiments of this invention can also comprise GS and CS in combination with an irrigation solution Further, to enhance retention time at the site of an intra-articulate application of an embodiment of this invention, the following biodegradable polymers may also be included in an embodiment of the compns. of the present invention: cellulose derivs. (e.g., hydroxypropylmethylcellulose, ethylcellulose, caboxymethylcellulose, etc.), carbopol, citosan, and collagen. Thus, a formulation was prepared containing glucosamine sulfate 1%, hyaluronic acid 3%, and chondroitin sulfate 4% in phosphate buffer saline.

L1 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:546939 CAPLUS
DOCUMENT NUMBER: 122:274105
TITLE: Surface-active viscoelastic hyaluronic acid solutions for ocular use
INVENTOR(S): Benedetto, Dominick A.
PATENT ASSIGNEE(S): Escalon Ophthalmics, Inc., USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9507085	A1	19950316	WO 1994-US10175	19940907
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: US 1993-116908 A 19930907
AB A modified mucopolysaccharide solution for use as a biol. active therapeutic infusion comprises a pharmaceutical-grade viscoelastic fraction selected from a C3-20 acyl-substituted hyaluronic acid and mixts. thereof with hyaluronic acid, and hydroxypropylmethylcellulose. These solns. have a surface tension of 40-65 dynes/cm2; the viscoelastic fraction preferably has an average mol. weight ≥50,000. In some embodiments a physiol. buffer fraction is present. The solution is injected intraocularly to protect internal ocular structures during ocular surgery and to retard aspiration of material from the ocular surgery site. The solution also can protect internal ocular structures such as corneal endothelium from accidental contact with surgical instruments. Thus, solns. of 2 hyaluronic acid fractions from rooster comb (1 + 106 Da at 5 mg/mL and 5 + 105 Da at 30 mg/mL) were mixed at a volume ratio of 2:1. The viscous mixture easily fractured when suctioned through a 0.3-mm aspiration cannula at a vacuum pressure of 50-200 mm Hg.

L1 ANSWER 4 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2006699865 IN-PROCESS
DOCUMENT NUMBER: PubMed ID: 17109954
TITLE: The prevention of peritoneal adhesions by in situ cross-linking hydrogels of hyaluronic acid and cellulose derivatives.
AUTHOR: Ito Taichi; Yeo Yoon; Highley Christopher B; Bellas Evangelia; Benitez Carlos A; Kohane Daniel S
CORPORATE SOURCE: Department of Chemical Engineering, Massachusetts Institute of Technology, 45 Carleton St., Cambridge, MA 02142, USA.

SOURCE: Biomaterials, (2007 Feb) Vol. 28, No. 6, pp. 975-83.
Electronic Publication: 2006-11-15.
Journal code: 8100316. ISSN: 0142-9612.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE: Entered STN: 2 Dec 2006
Last Updated on STN: 2 Dec 2006

AB Post-operative peritoneal adhesions can cause pelvic pain, infertility, and potentially lethal bowel obstruction. We have designed and synthesized injectable hydrogels that are formed by mixing hydrazide-modified hyaluronic acid (HA) with aldehyde-modified versions of cellulose derivatives such as carboxymethylcellulose (CMC), hydroxypropylmethylcellulose (HPMC), and methylcellulose (MC). Gelation of these hydrogels occurred in less than 1min, and had higher shear moduli than that of HA-HA gel (HAX). Hydrogels degraded in the presence of hyaluronidase in vitro, with HA-MC and HA-HPMC degrading more slowly than HAX and HA-CMC. The aldehyde-modified cellulose derivatives showed dose-dependent mild-to-moderate cytotoxicity to mesothelial cells and macrophages in vitro, but all were biocompatible in the murine peritoneum, causing no adhesions for 3 weeks. All the cellulose-derived gels showed efficacy in reducing the area of adhesion formation in a rabbit sidewall defect-bowel abrasion model.

L1 ANSWER 5 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2004249683 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15148219
TITLE: Sodium hyaluronate (hyaluronic acid) promotes migration of human corneal epithelial cells in vitro.
AUTHOR: Gomes J A P; Amankwah R; Powell-Richards A; Dua H S
CORPORATE SOURCE: Department of Ophthalmology, Paulista Medical School, Federal University of Sao Paulo, Sao Paulo, Brazil.
SOURCE: The British journal of ophthalmology, (2004 Jun) Vol. 88, No. 6, pp. 821-5.
Journal code: 0421041. ISSN: 0007-1161.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 20 May 2004
Last Updated on STN: 24 Jun 2004
Entered Medline: 22 Jun 2004

AB PURPOSE: Sodium hyaluronate (hyaluronic acid) is known to promote corneal epithelial wound healing in vivo and in vitro, in animal experiments. Sodium hyaluronate is the ligand for CD44, a cell surface adhesion molecule which has been found on normal human corneal epithelial cells. The purpose of this study was to investigate the effect of sodium hyaluronate on human corneal epithelial cell migration, proliferation, and CD44 receptor expression. METHODS: Human corneal epithelial cell cultures were established from 32 donor corneoscleral rims and maintained separately in three different culture conditions: (1) culture medium only, (2) sodium hyaluronate enriched (0.6 mg/ml) medium, and (3) hydroxypropylmethylcellulose enriched (2.5 mg/ml) medium. The total area of migrating epithelial cell sheets in each case was measured by planimetry on days 4, 8, 12, and 16. Cytospin preparations of cells cultured in the different culture conditions were examined immunohistochemically for proliferation and CD44 receptor expression using antibodies directed against Ki67 and CD44 respectively. RESULTS: Cells cultured in the presence of sodium hyaluronate showed significantly increased migration at days 12 and 16 (Friedmen test: p =

0.0012, day 16; p = <0.001, day 12) compared with cells cultured in the other media. There was no difference in cell proliferation (Ki67) or CD44 expression on cells cultured in the different culture conditions. CONCLUSIONS: Sodium hyaluronate promotes migration but not proliferation or CD44 expression on human corneal epithelial cells in vitro. The beneficial effect of sodium hyaluronate in corneal wound healing is likely to be related to rapid migration of cells leading to rapid wound closure. This may be facilitated by the adhesion between CD44 on the cells and hyaluronic acid, which coats the surface of the denuded cornea.

L1 ANSWER 6 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2003177787 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12696637
TITLE: Endotoxins in ophthalmic viscosurgical devices.
AUTHOR: Dick H Burkhard; Augustin A J; Pakula T; Pfeiffer N
CORPORATE SOURCE: Department of Ophthalmology, Johannes Gutenberg University of Mainz, Germany.. bdick@mail.uni-mainz.de
SOURCE: European journal of ophthalmology, (2003 Mar) Vol. 13, No. 2, pp. 176-84.
Journal code: 9110772. ISSN: 1120-6721.
PUB. COUNTRY: Italy
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200305
ENTRY DATE: Entered STN: 17 Apr 2003
Last Updated on STN: 13 May 2003
Entered Medline: 12 May 2003

AB PURPOSE: To measure the endotoxin concentration (EC) of 25 commercially available, hyaluronic acid- and hydroxypropylmethylcellulose-based (HPMC) ophthalmic viscosurgical devices (OVDs). METHODS: The in vitro Limulus amebocyte lysate (LAL) assay, which indicates the presence of endotoxins originating from gram-negative bacteria, was used to determine the EC. The procedure was performed according to the European Pharmacopoeia/USP. EC including duplicate determinations, negative controls, dilution series with control standard endotoxin, dilution series with sample extract and positive sample control. RESULTS: 16 OVDs (Amvisc, Amvisc Plus, Biolon, Coatel, Healon, Healon GV, Healon, HPMC Ophtal L, Microvisc, Microvisc Plus, Ocucoat, Provisc, Rayvisc, Viscoat, Visco Shield 2%, Visko 1.4%) had an EC under 1.2 endotoxin units/mL, five (Adatocel, HPMC Ophtal H, LA Gel, Viscorneal, Viscorneal Plus) had an EC > or = 1.2 and < or = 24 EU/ml, and four (Biocorneal, Dispasan also named Ophthalin, Dispasan Plus, Visko 1%) had an EC of > 24 EU/ml. DISCUSSION: To avoid viscoelastic-related inflammatory or immunological reactions, the use of pure OVDs is recommended, especially for surgical procedures with an inherent possibility of leaving viscoelastic remnants in the eye (e.g., cataract surgery, visco-canalostomy or penetrating keratoplasty).

L1 ANSWER 7 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2001538497 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11584850
TITLE: Improvement of the ocular surface using hypotonic 0.4% hyaluronic acid drops in keratoconjunctivitis sicca.
AUTHOR: Iester M; Orsoni G J; Gamba G; Taffara M; Mangiafico P; Giuffrida S; Rolando M
CORPORATE SOURCE: Department of Neurological and Visual Science, Ophthalmology B, University of Genoa, Italy.. iester@csita.unige.it
SOURCE: Eye (London, England), (2000 Dec) Vol. 14, No. Pt 6, pp. 892-8.
Journal code: 8703986. ISSN: 0950-222X.
PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200110
ENTRY DATE: Entered STN: 8 Oct 2001
Last Updated on STN: 22 Oct 2001
Entered Medline: 18 Oct 2001

AB BACKGROUND: The ocular surface changes of keratoconjunctivitis sicca (KCS) could be the result of the effect of an altered tear film on the epithelial environment. PURPOSE: To evaluate the possibility of improving the environmental conditions of the ocular surface by lowering tear osmolarity, increasing tear film volume and stabilising the tear film. Also, to study the effect of such an improvement on the epithelial cells of the ocular surface. METHODS: One hundred and thirty-five patients with a diagnosis of KCS were treated on a randomised basis with either unpreserved hypotonic 0.4% hyaluronic acid (HHA) eye drops or 0.3% hydroxypropylmethylcellulose plus 0.1% Dextran 70 (HPMC) eye drops 6 times a day for 60 or 90 days. In all patients a Schirmer I test, break-up time (BUT), ocular surface staining with 1% Bengal Rose, or 2% fluorescein, as well as subjective symptoms, were recorded before and 15, 30 and 60 days after the beginning of the study. Patients were divided into three subgroups and the effect of the treatment was studied using three different techniques: the tear ferning test, conjunctival impression cytology and tear osmolarity measurement. RESULTS: Improvements in BUT, vital staining, Schirmer I and symptoms were recorded in both groups of treatment, with significant differences for patients treated with 0.4% HHA. On day 60, 30 min after installation: tear ferning patterns changed from 100% pathological (types III-IV) to 93% physiological (types I-II) in the 0.4% HHA group and from 100% pathological to 78% physiological in the 0.3% HPMC group ($p < 0.01$ between groups). Tear osmolarity shifted from 353 +/- 23 to 305 +/- 6 mosmol/l in the 0.4% HHA group and from 346 +/- 15 to 336 +/- 8 mosmol/l in the 0.3% HPMC group ($p < 0.001$ between groups). On day 90, the impression cytology score improved from 1.2 to 1.9 in the 0.4% HHA group while it did not change in the 0.3% HPMC group ($p < 0.05$ between groups). CONCLUSION: In KCS appropriate treatment with a hypotonic 0.4% HHA tear substitute can change the tear environment and results in improvement of the epithelial conditions of the ocular surface.

L1 ANSWER 8 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2001028450 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10980662
TITLE: Effect of vehicle upon in vitro transcorneal permeability and intracorneal content of Delta9-tetrahydrocannabinol.
AUTHOR: Kearse E C; Green K
CORPORATE SOURCE: Department of Ophthalmology, Medical College of Georgia, Augusta, Georgia 30912-3400, USA.
CONTRACT NUMBER: EY12078 (NEI)
SOURCE: Current eye research, (2000 Jun) Vol. 20, No. 6, pp. 496-501.
Journal code: 8104312. ISSN: 0271-3683.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200011
ENTRY DATE: Entered STN: 22 Mar 2001
Last Updated on STN: 22 Mar 2001
Entered Medline: 21 Nov 2000

AB PURPOSE: To determine the transcorneal flux, and intracorneal penetration, of Delta9-tetrahydrocannabinol when presented to the isolated rabbit cornea in different vehicles. METHODS: Corneas were mounted in specular

microscope chambers, with (3)H-Delta9-tetrahydrocannabinol on the epithelial surface in one of 15 vehicles and the endothelium perfused with Ringer. Following equilibration the perfusate was collected at 20 minute intervals and sampled for counting. After 3 hours the epithelium was harvested and the stroma/endothelium collected. The tissues were placed in distilled water and sampled at 24 hours. RESULTS: The order of efficacy of the best 6 vehicles in terms of transcorneal Delta9-tetrahydrocannabinol flux was: alpha-cyclodextrin > hydroxypropylmethylcellulose (80 to 120 centipoises)> polyvinyl alcohol > hydroxypropylmethylcellulose (3500 to 5600 centipoises)> polyvinylpyrrolidone (29 to 32 centipoises) > polyvinylpyrrolidone (12 to 18 centipoises). Remaining vehicles, including light mineral oil, corn oil, hyaluronic acid , hydroxypropyl-beta-, beta-, and gamma-cyclodextrin and hydroxypropylmethylcellulose (40 to 60 centipoises) all gave lower fluxes. The epithelium was the site of most intracorneal drug. CONCLUSIONS: Differentiation was made between several potential vehicles for in vivo topical delivery of Delta9-tetrahydrocannabinol. The vehicles include cyclodextrins and other excipients such as hydroxypropylmethylcellulose and polyvinylpyrrolidone. There is not a strong relationship between solubility or binding of the lipophilic drug by excipients and transcorneal flux. The most efficacious vehicles provided a considerably greater transcorneal drug flux than light mineral oil which previously had been shown to deliver sufficient topical Delta9-tetrahydrocannabinol to reduce intraocular pressure of several species. The new vehicles should permit greater pharmacological sequelae.

L1 ANSWER 9 OF 9 MEDLINE on STN
ACCESSION NUMBER: 92252289 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1578874
TITLE: [Comparative studies of the use of viscoelastic substances in cataract surgery. A randomized study]. Vergleichende Untersuchungen zum Einsatz von visko-elastischen Substanzen in der Kataraktchirurgie. Eine randomisierte Studie.
AUTHOR: Ozmen A; Guthoff R; Winter R; Draeger J
CORPORATE SOURCE: Universitats-Augenklinik Hamburg.
SOURCE: Klinische Monatsblatter fur Augenheilkunde, (1992 Mar) Vol. 200, No. 3, pp. 171-4.
Journal code: 0014133. ISSN: 0023-2165.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199206
ENTRY DATE: Entered STN: 19 Jun 1992
Last Updated on STN: 19 Jun 1992
Entered Medline: 11 Jun 1992

AB In three prospectively randomized groups of patients viscoelastic materials during IOL-implantation have been compared concerning 1. intraocular pressure, 2. endothelial cell count, 3. corneal thickness. Examinations were performed preoperatively, the first, second and fifth postoperative day. There was no statistical difference between hydroxypropylmethylcellulose (2%), hyaluronic acid (1%) and air. Examinations were performed preoperatively the first, the second and the fifth postoperative day. There was no statistically significant difference between all groups of patients, Advantages and disadvantages for routine use of viscoelastic substances are discussed.

L2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:1150675 CAPLUS
TITLE: Fatty acid nanophase emulsion for treating xerophthalmia and related disease
INVENTOR(S): Cheng, Jingcai; Yuan, Shengliang; Zhong, Chengjuan
PATENT ASSIGNEE(S): Wuxi Jiexi Pharmaceutical Science and Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 16pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1850062	A	20061025	CN 2006-10038495	20060224

PRIORITY APPLN. INFO.: CN 2006-10038495 20060224

AB The title fatty acid nanophase emulsion is composed of fatty acid and derivs. and analog thereof 0.0001-50, emulsifying agent 5-300, additive(osmoregulator, pH regulator, cosolvent, trace element, antiseptic) 1-200 and addnl. water 500-1500 weight part. Fatty acid and its derivative or analog is eicosapentaenoic acid, Docosahexaenoic acid, linoleic acid, dimeric linoleic acid, arachidonic acid, α-linoleic acid, vitamin E, vitamin A, phytoxanthin, zeaxanthin, prostaglandin, etc. Emulsifying agent is polyethylene glycol, hydroxypropylmethyl cellulose, sodium CM-cellulose, hydroxypropyl cellulose, hyaluronic acid, polyvinyl alc., glyceryl acetate, lecithin, phospholipid, etc. Osmoregulator is glycerol, sodium chloride, potassium chloride, glycol, propanediol, glucose, maltose and/or malt dextrin; pH regulator is disodium hydrogen phosphate, potassium dihydrogen phosphate, sodium hydroxide, potassium hydroxide or hydrochloric acid; antiseptic is benzalkonium chloride, benzalkonium bromide, sorbic acid, disodium edetate; cosolvent is α-tocopherol or α-tocopherol acetate; trace element is Zn, Cu, Se, Mn, Cr, Mg or Fe. The inventive nanophase emulsion can be used for preparing drugs for treating xerophthalmia and related disease.

L2 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 92098001 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1757027
TITLE: [Controlled clinical study of two viscoelastic substances]. Kontrollierte klinische Studie zweier viskoelastischer Substanzen.
AUTHOR: Kammann J; Dornbach G; Vollenberg C; Hille P
CORPORATE SOURCE: Abteilung Augenheilkunde, St.-Johannes-Hospital, Dortmund 1, Bundesrepublik Deutschland.
SOURCE: Fortschritte der Ophthalmologie : Zeitschrift der Deutschen Ophthalmologischen Gesellschaft, (1991) Vol. 88, No. 5, pp. 438-41.
Journal code: 8302807. ISSN: 0723-8045.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: (CLINICAL TRIAL)
(CONTROLLED CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199202
ENTRY DATE: Entered STN: 23 Feb 1992
Last Updated on STN: 10 Dec 2002
Entered Medline: 3 Feb 1992

AB Viscoelastic substances in correlation with intraocular hypotony have gained great significance in low-irritation cataract surgery within the

last few years. The differences in their chemical properties, and thus in their effect on the eye, formed the grounds for a controlled clinical study comparing sodium hyaluronic acid, representing the group of glucosamine glykanes, and hydroxypropylmethyl cellulose (HPMC), representing the group of cellulose ethers. Two hundred cataract patients, excluding those suffering from diabetes mellitus, glaucoma and severe corneal damage, were examined on the 1st, 2nd and 5th postoperative day, as well as 4 weeks postoperatively. Statistically, no significant differences were found as regards IOP and postoperative anterior chamber irritation. From the economical point of view, methocel (HPMC) should be preferred to sodium hyaluronic acid in routine cataract surgery due to the lower costs.

L3 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:736829 CAPLUS
DOCUMENT NUMBER: 135:293955
TITLE: Gel compositions containing hyaluronic acid zinc complexes for treatment of skin disease
INVENTOR(S): Hayashi, Tatsuyuki; Kakubari, Takeshi; Murakami, Mitsuo; Ozaki, Akiyoshi
PATENT ASSIGNEE(S): Takada Seiyaku K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001278791	A2	20011010	JP 2000-97005	20000331

PRIORITY APPLN. INFO.: JP 2000-97005 20000331
AB The invention relates to a gel composition having improved storage stability for treatment of skin disease, especially chronic wound, e.g. decubitus, wherein the composition contains hyaluronic acid zinc complex as an active ingredient, and hydrophobic hydroxypropyl Me cellulose. A gel composition containing hyaluronic acid zinc complex 2, hydrophobic hydroxypropyl Me cellulose 12, concentrate glycerin 100, citric acid 2.1, Me paraben 1.5, Pr paraben 0.2, NaOH q.s., and water q.s. to 1000 g was prepared

L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:913949 CAPLUS
DOCUMENT NUMBER: 123:349996
TITLE: Effect of polymer swelling and drug diffusion on drug release from polysaccharide matrixes (hyaluronic acid, hydroxypropyl methyl cellulose)
AUTHOR(S): Sung, Kuochun
CORPORATE SOURCE: Univ. of Kansas, Lawrence, KS, USA
SOURCE: (1994) 169 pp. Avail.: Univ. Microfilms Int., Order No. DA9528401
From: Diss. Abstr. Int., B 1995, 56(4), 1960
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L3 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:602342 CAPLUS
DOCUMENT NUMBER: 123:17996
TITLE: Hyaluronic acid compositions useful as an irrigating solution in surgery
INVENTOR(S): Hecht, Gerald; Lorenzetti, Ole J.
PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA
SOURCE: U.S., 7 pp. Cont. of U.S. Ser. No. 553,924, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5409904	A	19950425	US 1992-977312	19921116
WO 9632929	A1	19961024	WO 1995-US4816	19950419

W: AU, CA, JP, MX
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

AU 9523895	A1	19961107	AU 1995-23895	19950419
US 5578578	A	19961126	US 1995-425132	19950419
PRIORITY APPLN. INFO.:			US 1984-671042	B1 19841113
			US 1986-899167	B1 19860822
			US 1987-95601	B2 19870910
			US 1990-553924	B1 19900717
			US 1992-977312	19921116
			WO 1995-US4816	W 19950419

AB Disclosed are solns. useful in surgery comprising a viscous or viscoelastic substance in an aqueous vehicle which is characterized as physiol. compatible; also disclosed are methods of using such solns., implanting such viscous or viscoelastic substances, while minimizing the traumatic effect of surgery at the cellular level. A solution for use during ocular surgery contained Na hyaluronate 1, NaCl 1, dried Na phosphate 1, CaCl2 1, MgCl2 1, dextrose 1, glutathione 0.5, NaHCO3 1, NaOH/HCl q.s. to pH 7.2, and purified water to 100 parts.

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:223101 CAPLUS
DOCUMENT NUMBER: 122:17080
TITLE: Physical properties of hyaluronic acid and hydroxypropyl methyl cellulose in solution: evaluation of coating ability
AUTHOR(S): Silver, Frederick H.; LiBrizzi, Joseph; Pins, George; Wang, Ming-Che; Benedetto, Dominick
CORPORATE SOURCE: Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, Piscataway, NJ, USA
SOURCE: Journal of Applied Biomaterials (1994), 5(1), 89-98
CODEN: JABIEW; ISSN: 1045-4861
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hyaluronic acid (HA) and hydroxypropyl Me cellulose (HPMC) in buffered saline are "viscoelastics" used in ophthalmic surgery to prevent mech. damage to delicate eye structures and to form a protective coating over corneal endothelium. HA is a high mol. weight polysaccharide that exhibits decreasing viscosity at increased shear rates. HPMC is a cellulose derivative that exhibits low surface tension. This study examines the phys. properties of HA and HPMC solns. and attempts to correlate these properties with the ability of those macromols. to coat and protect ocular structures. Results presented in this article suggest mixts. of HA and HPMC exhibit low surface tension and ease of aspiration characteristics that are desired in viscoelastic materials. For this reason a blend of these two macromoleculars offers handling advantages over each of these individual macromols.

L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:42384 CAPLUS
DOCUMENT NUMBER: 112:42384
TITLE: Comparison of hydroxypropyl methyl cellulose 2% (Adatocel) and hyaluronic acid 1% (Healon)
AUTHOR(S): Fechner, P. U.; Rimpler, M.
CORPORATE SOURCE: Dep. Ophthalmol., Robert Koch Hosp., Hannover-Gehrden, Fed. Rep. Ger.
SOURCE: Journal of Cataract & Refractive Surgery (1989), 15(6), 685-8
CODEN: JCSUEV; ISSN: 0886-3350
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hydroxypropyl Me cellulose solns. (2% HPMC) for intraocular surgery were examined for impurities. There was no evidence of any particulate matter in two solns. from different sources: one prepared by a hospital pharmacy, the other industrially prepared (Adatocel). In a controlled clin. study, Adatocel was compared with Healon (1% hyaluronic acid solution). The postoperative irritation (cellular response) in the anterior chamber was the same in both groups.

L3 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:561720 CAPLUS
DOCUMENT NUMBER: 107:161720
TITLE: High-viscosity liquid for cornea protection during eye surgery
INVENTOR(S): Yamamoto, Yujiro; Awata, Takashi; Terayama, Hideo
PATENT ASSIGNEE(S): Senju Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62122671	A2	19870603	JP 1985-263526	19851123
JP 01031390	B4	19890626		

PRIORITY APPLN. INFO.: JP 1985-263526 19851123

AB A high-viscosity liquid for use in eye surgery is prepared by dissolving hydroxypropyl methyl cellulose and/or hyaluronic acid in a buffer containing salts and(or) sugars, mixing with an alkali metal carbonate or bicarbonate solution, and adjusting pH to 6.8. NaCl 0.7, KCl 0.04, MgSO4 0.03, glucose 0.15, NaOAc 0.06, Na citrate 0.1 and CaCl2 0.02 g in 75 mL sterilized water were heated at .apprx.80°, stirred with 2 g hydroxypropyl methyl ellulose, and cooled. To this was added 0.2 g NaHCO3 in 20 mL sterilized water and the mixture was adjusted to pH 7.4 with 1 N HCl and diluted with water to 100 mL. The solution was packed in ampules.

L4 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:1015411 CAPLUS
DOCUMENT NUMBER: 145:404111
TITLE: Manufacture of oral antiulcer agent containing chymotrypsin and trypsin
INVENTOR(S): Xie, Tianpei; Ge, Meng; Li, Li
PATENT ASSIGNEE(S): Shanghai Tengen Biomed Co., Ltd., Peop. Rep. China; Shanghai Yuanchuang Biomed Co., Ltd.
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 25pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1836727	A	20060927	CN 2005-10024629	20050325

PRIORITY APPLN. INFO.: CN 2005-10024629 20050325
AB The title oral antiulcer agent is composed of (by weight parts) chymotrypsin, trypsin, or their mixture 0.1-10, and solid adhesive 50-99.9. The solid adhesive is selected from anyone or mixture of carbopol, hydroxypropyl methylcellulose or its sodium salt, hydroxypropyl cellulose or its sodium salt, CM-cellulose or its sodium salts, hyaluronic acid, poly(aspartic acid), arabic gum, tragacanth, sodium alginate, and starch. The oral antiulcer agent is in the form of solid or semisolid state, and has the advantages of simple administration, good curative effect, and long time of action.

L4 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:697037 CAPLUS
DOCUMENT NUMBER: 145:460470
TITLE: Ophthalmic gels of pirenzepine containing hyaluronic acid
INVENTOR(S): Gao, Chuanyou
PATENT ASSIGNEE(S): Shanghai Wuguan Pharmaceutical Science and Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1799547	A	20060712	CN 2005-10023169	20050107

PRIORITY APPLN. INFO.: CN 2005-10023169 20050107
AB The eye gel contains active ingredient of pirenzepine and its stabilizing agent of hyaluronic acid 0.05-0.5 wt%, and additive which comprises osmotic regulator, pH regulator and/or preservative. The concentration of pirenzepine was 0.5-5.0 g/100 mL. The osmotic regulator was selected from sodium chloride, potassium chloride, glucose, mannite, polyethylene glycol, or a mixture of them. The pH regulator was selected from hydrochloric acid, sulfuric acid, phosphoric acid, citric acid, tartaric acid, lactic acid, etc. The preservative was selected from nipagin, benzoic acid, sorbic acid, alcs., organic acids, or a mixture of them. The eye gel has good stability.

L4 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1050844 CAPLUS
DOCUMENT NUMBER: 143:332659
TITLE: Viscoelastic compositions containing free radical

scavenger and viscoelastic polymer, methods of use and packaging
INVENTOR(S): Bucolo, Claudio; Cro, Melina G.; Maltese, Adriana L. A.; Jani, Dharmendra M.
PATENT ASSIGNEE(S): Italy
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005215516	A1	20050929	US 2004-812551	20040329
CA 2560943	AA	20051020	CA 2005-2560943	20050322
WO 2005097226	A1	20051020	WO 2005-US9512	20050322

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-812551 A 20040329
WO 2005-US9512 W 20050322

AB The present invention is directed to a viscoelastic composition comprising an aqueous solution having a min. of about 0.01% weight/volume and a maximum of about 20% weight/volume of a viscoelastic polymer based upon the total volume of the viscoelastic composition Typically, the viscoelastic composition further contains tris[hydroxymethyl]aminomethane and a polyol. The present invention also includes methods of use of the new viscoelastic composition and a packaging device. Thus, viscoelastic composition was prepared containing hyaluronic acid 2.3%, hydroxypropyl methylcellulose 0.8%, sorbitol 4.4%, tris-[hydroxymethyl]aminomethane 20 mM and water to 100%. The formulation containing combination of tris-[hydroxymethyl]aminomethane and sorbitol had best free radical quenching properties.

L4 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:506136 CAPLUS
DOCUMENT NUMBER: 127:166851
TITLE: Method of making in situ filler material for mammary, penile and testicular prosthesis and tissue expanders
INVENTOR(S): Purkait, Bobby
PATENT ASSIGNEE(S): Mentor Corporation, USA
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 784987	A2	19970723	EP 1997-300087	19970108
EP 784987	A3	19990407		
EP 784987	B1	20031001		

R: DE, ES, FR, GB, IT, NL

ES 2206655 T3 20040516 ES 1997-300087 19970108
PRIORITY APPLN. INFO.: US 1996-585622 A 19960116
AB An inflatable prosthesis which contains a dehydrated substance that forms a gel when mixed with an aqueous solution is disclosed. The dehydrated substance is a biocompatible material such as an hydrophilic polymer which includes but is not limited to polyacrylamide, polyvinylpyrrolidone, hydroxypropyl methylcellulose, polyvinyl alc., polyethylene oxides, polypropylene oxides, polyethylene glycol, polylactic, polyglycolic acids, hydrogel polyurethane, chondroitin sulfate, hyaluronic acid and alginate. The prosthesis includes a flexible inflatable outer shell that has an inner cavity. The inner cavity may contain the sterile dehydrated substance. The prosthesis is provided to the surgical site while the substance is in the dehydrated state. An initial volume of aqueous solution can be added to the inner cavity of the outer shell. The dehydrated substance combines with the aqueous solution to form a gel within the implant. The semi-inflated prothesis can be implanted into a breast and inflated to a desired size with an addition volume of aqueous solution The dehydrated substance may be coated along the inner surface of the prosthesis to form a lubricant which reduces crease-fold rupture. As an alternate embodiment, the dehydrated substance may be supplied in a package sep. from the outer shell. An aqueous solution can be added to the package in situ to form a gel which can be subsequently added to the inner cavity of the outer shell. The schematic drawings of different prosthetic implants according to this invention are depicted.

L4 ANSWER 5 OF 10 MEDLINE on STN
ACCESSION NUMBER: 2001089100 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11084443
TITLE: [Cytotoxicity evaluation of three tear substitutes used in the treatment of dry eye syndromes].
Evaluation de la cytotoxicite de trois substituts lacrymaux utilises dans le traitement des syndromes secs.
AUTHOR: Debbasch C; Pisella P J; Rat P; Warnet J M; Baudouin C
CORPORATE SOURCE: Unite de Pharmaco-Toxicologie Cellulaire, CHNO des Quinze-Vingts, 28, rue de Charenton 75012 Paris.
SOURCE: Journal francais d'ophtalmologie, (2000 Nov) Vol. 23, No. 9, pp. 863-9.
Journal code: 7804128. ISSN: 0181-5512.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 22 Mar 2001
Last Updated on STN: 22 Mar 2001
Entered Medline: 16 Jan 2001
AB PURPOSE: To investigate cell tolerance of three tear substitutes used in the treatment of dry eye syndromes. METHODS: Cytotoxicity tests were done on a continuous human conjunctival cell line using microplate cold light cytofluorimetry. Membrane integrity, DNA condensation and reactive oxygen species (ROS) production (hydrogen peroxyde and superoxide anion) were evaluated after 15 minutes of treatment or 15 minutes and 24 hours of cell recovery. Hyaluronic acid, hydroxypropyl methylcellulose associated with sodium perborate (HPMC) and carbomer 934P were tested at their commercial concentrations (respectively 0.18%, 0.3% and 0.3%) and after a 1/10 dilution. RESULTS: Cell viability and chromatin condensation were not altered by hyaluronic acid for all concentrations and times tested. A decrease in membrane integrity was observed with 0.3% carbomer 934P after 24 hours of cell recovery and with 0.3% HPMC after 15 minutes. This decrease was amplified after 24 hours and associated with an apoptotic phenomenon. A

H(2)O(2) production was observed with HPMC associated with sodium perborate and an O(2) production was found with hyaluronic acid diluted at 1/10. CONCLUSION: Hyaluronic acid, carbomer and HPMC are in vitro well-tolerated even if HPMC induces a more important decrease of cell viability compared to the other drugs. Hyaluronic acid, with its rheologic properties, with no in vitro toxicity, seems to be efficient for dry eye patients.

L4 ANSWER 6 OF 10 MEDLINE on STN
ACCESSION NUMBER: 2000147423 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10683799
TITLE: Ultrasonic transmission in viscoelastic substances.
AUTHOR: Frohn A; Dick H B; Fritzen C P; Breitenbach M; Thiel H J
CORPORATE SOURCE: University Eye Hospital Tubingen, Germany.
SOURCE: Journal of cataract and refractive surgery, (2000 Feb) Vol. 26, No. 2, pp. 282-6.
Journal code: 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 27 Mar 2000
Last Updated on STN: 27 Mar 2000
Entered Medline: 13 Mar 2000

AB PURPOSE: To study the propagation of ultrasonic shock waves in viscoelastic agents and the resulting corneal load. SETTING: University Siegen, Institute for Mechanics and Control Engineering, Siegen, Germany. METHODS: The anterior chamber of a manufactured artificial eye was constructed according to anatomic dimensions. Three openings were drilled--for the phaco tip, for the exchange of a viscoelastic agent or water, and for the shock-wave sensor. The sensor was fixed to the area corresponding to the corneal apex. The sensor signal was analyzed using a direct oscilloscope that measured the amplitude reaching the corneal apex. Shock-wave propagation in several viscoelastic agents was compared with that in balanced salt solution. RESULTS: In hydroxypropyl methylcellulose, the shock wave was amplified or influenced slightly. In hyaluronic-acid preparations, acoustic dampening occurred. CONCLUSION: Removal of hyaluronic-acid derivatives prior to phacoemulsification is not necessary.

L4 ANSWER 7 OF 10 MEDLINE on STN
ACCESSION NUMBER: 97416478 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9270428
TITLE: Electrical impedance of the cochlear implant lubricants hyaluronic acid, oxycellulose, and glycerin.
AUTHOR: Mens L H; Oostendorp T F; Hombergen G C; den Broek P
CORPORATE SOURCE: Department of Otorhinolaryngology, University Hospital Nijmegen, The Netherlands.
SOURCE: The Annals of otology, rhinology, and laryngology, (1997 Aug) Vol. 106, No. 8, pp. 653-6.
Journal code: 0407300. ISSN: 0003-4894.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199709
ENTRY DATE: Entered STN: 22 Sep 1997
Last Updated on STN: 6 Feb 1998
Entered Medline: 11 Sep 1997

AB Hyaluronic acid (Healon), oxycellulose (hydroxypropyl methylcellulose), and glycerin are lubricants used in cochlear implant surgery for atraumatic deep insertion

of the electrode array into the scala tympani. The electrical impedances of these three lubricants were measured to assess possible effects on intraoperative evoked response measurements, such as the electrically evoked stapedius reflex and auditory brain stem response. The impedances of hyaluronic acid, oxycellulose, and saline were very similar and independent of frequency (20 Hz to 1 MHz). Glycerin had an excessively high impedance at low frequencies. A film of hyaluronic acid or oxycellulose around the electrode array immersed in saline did not have any measurable effect on the impedance; a film of glycerin resulted in a strongly reactive polarized layer. However, neither the far-field current spread nor the impedance between stimulated electrodes was affected by any of the lubricants applied as a thin film. This suggests that none of these lubricants affect intraoperative responses, when applied as a thin film.

L4 ANSWER 8 OF 10 MEDLINE on STN
ACCESSION NUMBER: 95398343 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7668760
TITLE: Effects of glycerin, hyaluronic acid, and hydroxypropyl methylcellulose on the spiral ganglion of the guinea pig cochlea.
AUTHOR: Roland J T Jr; Magardino T M; Go J T; Hillman D E
CORPORATE SOURCE: Department of Otolaryngology, New York University Medical Center, New York, USA.
SOURCE: The Annals of otology, rhinology & laryngology. Supplement, (1995 Sep) Vol. 166, pp. 64-8.
Journal code: 1256156. ISSN: 0096-8056.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199510
ENTRY DATE: Entered STN: 20 Oct 1995
Last Updated on STN: 6 Feb 1998
Entered Medline: 12 Oct 1995

AB A cochlear lubricant may facilitate the surgeon's ability to place the electrode array deep within the cochlea. Patient performance with the multichannel cochlear implant may be enhanced with a deeper electrode insertion. Theoretically, deeper insertion and stimulation will recruit and activate more surviving spiral ganglion neurons. Several studies have shown that neuron survival is a factor for cochlear implant success, especially in the postmeningitis patient. We studied the histologic and electrophysiologic effects of the intracochlear injection of three potential lubricants in the guinea pig: glycerin, hyaluronic acid, and hydroxypropyl methylcellulose. All three have approved medical uses, reduce friction, and are readily available. Results show that when compared to surgical controls (cochleostomy without injection), there is no significant reduction in the spiral ganglion neuronal count at 2 and 8 weeks postinjection, and the dendrite and axon histology is well preserved. Injection of any of the substances within the cochlea causes severe hearing loss (detected by direct round window electrocochleographic responses to auditory stimuli) that only partially recovers with time. These findings suggest that any of the three tested substances could be considered as lubricants for intracochlear electrode insertion.

L4 ANSWER 9 OF 10 MEDLINE on STN
ACCESSION NUMBER: 95060616 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7970538
TITLE: Postoperative intraocular pressure changes with use of different viscoelastics.
AUTHOR: Dada V K; Sindhu N; Sachdev M S
CORPORATE SOURCE: Department of Ophthalmology, Dr Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical

Sciences, New Delhi.
SOURCE: Ophthalmic surgery, (1994 Aug) Vol. 25, No. 8, pp. 540-4.
Journal code: 0241035. ISSN: 0022-023X.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 10 Jan 1995
Last Updated on STN: 10 Jan 1995
Entered Medline: 29 Dec 1994

AB Sixty eyes with age-related cataract underwent extracapsular cataract extraction (ECCE) with posterior chamber intraocular lens (PC-IOL) implantation under similar conditions using hydroxypropyl methylcellulose (HPMC) (Oculose) (n = 20), sodium hyaluronate (Healon) (n = 20), or hyaluronic acid (IAL) (n = 20) as the viscoelastic (VE). Postoperative evaluation was performed for intraocular pressure (IOP), corneal thickness, and anterior chamber reaction at 6, 24, 48, 72 hours, and 10 days. Statistically-significant rises in IOP with IAL and Healon were observed at 6 and 24 hours; no such rises were observed with Oculose ($P < .05$). Seven eyes in the IAL group and six in the Healon group had IOPs greater than 22 mm Hg at 6 hours (range: 22 to 38 mm Hg and 22 to 28 mm Hg, respectively). A significant increase in average corneal thickness was observed in all of the 60 patients at 6 hours (18.5%). The average thickness decreased to 6.8% by day 10, with no intergroup variations. There were significantly fewer anterior chamber cells at 6 hours in the Healon group. We conclude that all three viscoelastics are equally useful for routine ECCE with PC-IOL implantation. However, IAL and Healon do cause an early postoperative IOP increase, which, though transient, should be treated.

L4 ANSWER 10 OF 10 MEDLINE on STN
ACCESSION NUMBER: 90133493 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2693691
TITLE: Comparison of hydroxypropyl methylcellulose 2% (Adatocel) and hyaluronic acid 1% (Healon).
AUTHOR: Fechner P U; Rimpler M
CORPORATE SOURCE: Department of Ophthalmology, Robert Koch Hospital, Hannover-Gehrden, West Germany.
SOURCE: Journal of cataract and refractive surgery, (1989 Nov) Vol. 15, No. 6, pp. 685-8.
Journal code: 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199003
ENTRY DATE: Entered STN: 28 Mar 1990
Last Updated on STN: 29 Jan 1996
Entered Medline: 9 Mar 1990

AB Hydroxypropyl methylcellulose solutions (2% HPMC) were examined for impurities. There was no evidence of any particulate matter in two solutions from different sources: one prepared by a hospital pharmacy, the other industrially prepared (Adatocel). In a controlled clinical study, Adatocel was compared with Healon (1% hyaluronic acid solution). The postoperative irritation (cellular response) in the anterior chamber was the same in both groups.

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:14920 CAPLUS
DOCUMENT NUMBER: 132:162186
TITLE: An animal model based on the Sprague-Dawley rat for the evaluation of ototoxicity
AUTHOR(S): Martini, A.; Hatzopoulos, S.; Rubini, R.; Di Stefano, M.; Albertin, A.; Govoni, E.
CORPORATE SOURCE: Department of ENT, Audiology, University of Ferrara, Ferrara, 44100, Italy
SOURCE: Annals of the New York Academy of Sciences (1999), 884(Ototoxicity), 85-98
CODEN: ANYAA9; ISSN: 0077-8923
PUBLISHER: New York Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Various methodol. approaches that can be used to detect ototoxic effects caused by the administration of various substances are presented, using the Sprague-Dawley rat as an animal model. Electrophysiol. data are also presented to show how the model behaves with potentially ototoxic (hyaluronic acid) and initially inert (hydroxy-propyl-methyl-cellulose) substances.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 2000301403 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10842586
TITLE: An animal model based on the Sprague Dawley rat for the evaluation of ototoxicity.
AUTHOR: Martini A; Hatzopoulos S; Rubini R; Di Stefano M; Albertin A; Govoni E
CORPORATE SOURCE: Department of ENT, Audiology, University of Ferrara, Italy.. mma@dns.unife.it
SOURCE: Annals of the New York Academy of Sciences, (1999 Nov 28) Vol. 884, pp. 85-98.
Journal code: 7506858. ISSN: 0077-8923.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200006
ENTRY DATE: Entered STN: 6 Jul 2000
Last Updated on STN: 6 Jul 2000
Entered Medline: 27 Jun 2000
AB Various methodological approaches that can be used to detect ototoxic effects caused by the administration of various substances are presented, using the Sprague-Dawley rat as an animal model. Electrophysiological data are also presented to show how the model behaves with potentially ototoxic (hyaluronic acid) and initially inert (hydroxy-propyl-methyl-cellulose) substances.

L12 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:656003 CAPLUS
TITLE: Rheological and cohesive properties of Hyaluronic Acid
AUTHOR(S): Falcone, Samuel J.; Berg, Richard
CORPORATE SOURCE: Research & Development, FzioMed, Inc, San Luis Obispo, CA, 93401, USA
SOURCE: Abstracts of Papers, 228th ACS National Meeting, Philadelphia, PA, United States, August 22-26, 2004 (2004), CELL-034. American Chemical Society: Washington, D. C.
CODEN: 69FTZ8
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
AB Hyaluronic acid (HA) is a naturally occurring polysaccharide with unique biomedical applications. We have studied hyaluronic acid of three mol. wts. (0.35 - 1.80 x 106 Daltons) and found that the cohesive nature of HA was highly dependent on mol. weight Several rheol. parameters correlated with mol. weight: pseudoplastic shear thinning behavior, plastic viscosity, and zero shear viscosity. Dynamic rheol. parameters indicated that although the crossover frequency was also proportional to mol. weight, the crossover modulus was proportional to the concentration of polymer in solution and independent of mol. weight The cohesive property of the HA solns., measured by dynamic aspiration was found to correlate to select shear flow and dynamic rheol. measurements. Taken together the parameters measured support the structure of HA in solution as a cohesive elastic gel with its biomaterial properties dependent on mol. weight

L12 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:358244 CAPLUS
DOCUMENT NUMBER: 141:337386
TITLE: Preparation and characterization of a hydrogel from low-molecular weight hyaluronic acid
AUTHOR(S): Xuejun, X.; Netti, P. A.; Ambrosio, L.; Nicolais, L.; Sannino, A.
CORPORATE SOURCE: Department of Materials and Production Engineering, University of Naples "Federico II", Naples, I-80125, Italy
SOURCE: Journal of Bioactive and Compatible Polymers (2004), 19(1), 5-15
CODEN: JBCPEV; ISSN: 0883-9115
PUBLISHER: Sage Publications Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A relatively low-mol. weight sample of hyaluronic acid (HA) was chemical modified by means of a crosslinking reaction with water-soluble carbodiimide and L-lysine Me ester to form a chemical hydrogel. FT-IR anal. performed on the precursors and on the crosslinked hydrogel indicated the formation of ester bonds between different HA mols. that led to an intermol. crosslinking. Hydrogel swelling kinetics as well as equilibrium sorption properties were evaluated. A swelling ratio of 250 was observed after immersion in distilled water for 7 h. Rheol. measurements by means of a plate-plate rheometer of the crosslinked sample showed non-Newtonian and pseudoplastic behavior, while the uncross-linked HA showed Newtonian behavior and a viscous characteristic. Morphol. anal. of these microstructures by SEM indicated that the freeze-dried crosslinked hydrogel presents a more closed-pore structure and higher d. of pores than the freeze-dried original HA.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:639128 CAPLUS
DOCUMENT NUMBER: 133:227601
TITLE: Delivery system for oil-soluble actives in cosmetic/personal care products
INVENTOR(S): Vernice, Joseph James
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6117419	A	20000912	US 1996-714247	19960916
PRIORITY APPLN. INFO.:			US 1996-714247	19960916

AB Described herein is a method for making a flake for use in a topical application. The flake is formed by contacting a liquid phase waxy material that may contain pigments, fragrances, plasticizers, hydrophilic modifiers with a pseudoplastic hydrophilic gel, and/or an active ingredient. The waxy material contacts the surface of the gel and after the two materials have contacted, the waxy material is solidified and forms a sheet. This sheet is then broken into pieces to form the flakes of the present invention. The flakes can be used in formulating any topical product that can contain a lipid material. An antiacne gel containing flakes comprised bayberry wax 20, ozokerite wax 20, cetyl alc. 75, sphingoceryl wax 20, petrolatum 30, retinoic acid 2.5, hydroxypropyl Me cellulose 1.75, NaOH 0.01, citric acid 0.02, preservatives q.s., and water q.s. to 100 %.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:628680 CAPLUS
DOCUMENT NUMBER: 123:17645
TITLE: Non-Newtonian properties of hyaluronic acid aqueous solution
AUTHOR(S): Pisarcik, Martin; Bakos, Dusan; Ceppan, Michal
CORPORATE SOURCE: Dep. Printing Technol. and Applied Photochem., Slovak Technical Univ., Bratislava, SK-812 37, Slovakia
SOURCE: Colloids and Surfaces, A: Physicochemical and Engineering Aspects (1995), 97(3), 197-202
CODEN: CPEAEH; ISSN: 0927-7757
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The systems comprising hyaluronic acid (HA) aqueous solution and acetylsalicylic acid salt in the HA solution were studied. It was found that both systems display pseudoplastic behavior. The viscosity (η) dependence of the shear rate (γ) of these systems was fitted using non-linear regression, with the best accuracy achieved by the empirical formula $\eta \propto \gamma^{-3/4}$. The radius of equivalent spheres (re) representing non-interacting, compressed macromol. chains, was calculated from the regression constant, and was plotted as a function of salt concentration
The compressing effect of the HA chains is caused by the presence of acetylsalicylic acid salt in the aqueous solution; the polymer chains change their shape into contracted structures as a result of suppressing the repulsion in the polyelectrolyte chain by adding salt counter ions. At low salt concs., the lowest values of re were found if the acetylsalicylic acid salt with the highest ionic strength (Mg salt) in the HA solution was present.

L12 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:247700 CAPLUS
DOCUMENT NUMBER: 120:247700
TITLE: Viscoelastic Behavior of Thermally Treated Aqueous Xanthan Solutions in the Semidilute Concentration Regime
AUTHOR(S): Oviatt, Henry W., Jr.; Brant, David A.
CORPORATE SOURCE: Department of Chemistry, University of California, Irvine, CA, 92717-2025, USA
SOURCE: Macromolecules (1994), 27(9), 2402-8
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The rheol. of 5 fractions of the microbial polysaccharide xanthan was studied in semidil. aqueous solution Samples covering a 3-fold range of mol. weight ((0.46-1.20) + 106 g-mol-1) and a 3-fold range of concentration (1.0-3.0 g-dL-1) were investigated. The samples were heated for 20 min at 121° in the presence of 0.10 M NaCl and cooled to room temperature for measurement. Xanthan samples prepared in this way exhibit large increases in steady shear viscosity, dynamic viscosity, and dynamic storage and loss moduli relative to the unheated control samples. Procedures are presented for bringing much of the data onto rather well-defined master curves that disclose clear systematic differences between the behavior of autoclaved and unheated samples and between xanthan samples of high and low mol. weight The heat-treated xanthan samples display viscoelasticity and pseudoplasticity that rival or exceed those shown at similar concns. by the polysaccharide hyaluronic acid (I), widely employed in ocular surgical techniques for its desirable rheol. properties. The development of I-like rheol. in xanthan is interpreted here in terms of tenuous network formation involving junction zones between xanthan chains that are based on the duplex motif of the native xanthan double strand. Under the conditions of added salt described, autoclaving at 121° is postulated to disrupt the native duplex, which re-forms on cooling of the highly interpenetrating semidil. polymer coils to form addnl. duplex network junction zones. Extreme pseudoplasticity arises from the ready disruption of these junction zones by shear. The higher mol. weight controls also exhibit many rheol. characteristics in common with the autoclaved samples. These similarities are interpreted in terms of the existence of a significant proportion of nonequil. duplex structure, and hence more extensive network development, in the higher mol. weight controls than is present in their lower mol. weight counterparts.

L12 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:542185 CAPLUS
DOCUMENT NUMBER: 115:142185
TITLE: Evaluation of high- and low-molecular-weight fractions of sodium hyaluronate and an ionic complex as adjuvants for topical ophthalmic vehicles containing pilocarpine
AUTHOR(S): Saettone, M. F.; Giannaccini, B.; Chetoni, P.; Torracca, M. T.; Monti, D.
CORPORATE SOURCE: Lab. Tecnol. Farm. Biofarm., Univ. Pisa, Pisa, Italy
SOURCE: International Journal of Pharmaceutics (1991), 72(2), 131-9
CODEN: IJPHDE; ISSN: 0378-5173
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two low-mol.-weight fractions of Na hyaluronate (Na-HA), denominated Hyalastin and Hyalectin, were investigated as potential adjuvants for ophthalmic vehicles containing pilocarpine nitrate (PiN). Tests were also performed on an ionic complex (HA/PiB) prepared from hyaluronic acid (derived from Hyalastin) and pilocarpine base. The performance of the vehicles under study was verified by miosis and ocular

retention tests carried out on albino rabbits, against a series of reference vehicles, 3 or which contained a high-mol.-weight fraction of Na-HA (Healon). The group of 14 reference and test prepns. exhibited Newtonian or pseudoplastic flow characteristics and encompassed a wide range of apparent viscosities (1 to 1054 mPa s). The Ha/PiB salt and the high-MW Na-HA can significantly increase the bioavailability of pilocarpine with respect to reference vehicles of comparable viscosity: an effect that can be reasonably attributed to muco-adhesive effects. Conversely, in the present rabbit tests, the low-MW fractions of Na-HA performed poorly as adjuvants for the PiN solns.

L12 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:39490 CAPLUS
DOCUMENT NUMBER: 104:39490
TITLE: Effective use of hyaluronic acid
AUTHOR(S): Band, Philip
CORPORATE SOURCE: Biomatrix, Inc., Ridgefield, NJ, USA
SOURCE: Drug & Cosmetic Industry (1985), 137(4), 54, 56, 98-9
CODEN: DCINAQ; ISSN: 0012-6527
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The coherence, viscosity, elasticity, and pseudoplasticity of aqueous solns. of hyaluronic acid [9004-61-9] are discussed with resp. to cosmetic formulations and the mol. weight and structure.

L12 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:124720 CAPLUS
DOCUMENT NUMBER: 80:124720
TITLE: Pseudosynovial fluids based on sodium carboxymethylcellulose
AUTHOR(S): Homsy, Charles A.; Stanley, Rufus F.; King, Joe W.
CORPORATE SOURCE: USA
SOURCE: Rheol. Biol. Syst., Proc. Symp. (1973), Meeting Date 1971, 278-98. Editor(s): Gabelnick, Henry L. Thomas: Springfield, Ill.
CODEN: 27PQAY
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Springfield, Ill. Expts. were undertaken to model the polyanionic morphology of hyaluronic acid with readily available Na CM-cellulose (I). Aqueous solns. of I with physiol. salts efficiently simulate the pseudoplastic behavior of synovial fluid. The synthetic polyanion, CM-cellulose, appears to be an effective model for the biopolymer, hyaluronic acid. Pseudosynovial fluid based on I shows in simulated ambulation tests that the probable mechanism of synovial fluid joint lubrication is a combination of hydrodynamic and boosted film lubrication. Effective interfacial viscosity of synovial fluid is elevated at the beginning and end of load cycle and lower at midcycle. In limited preliminary rabbit animal tests, pseudosynovial fluid was found nonirritating in the anterior chamber of the eye and knee joint tissues. Clinically, a significant degree of effusion in pathol. joints seriously impairs lubrication efficiency in that joint. Injection of hypertonic saline in conjunction with antiinflammatory drugs may more rapidly improve lubrication efficiency of fluid in pathol. joints.

L12 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1971:400365 CAPLUS
DOCUMENT NUMBER: 75:365
TITLE: Pseudoplastic behavior of aqueous solutions of hyaluronic acid
AUTHOR(S): Johnson, Richard S.; Niedermeier, William; Bobo, Phillip
CORPORATE SOURCE: Med. Coll., Univ. Alabama, Birmingham, AL, USA

SOURCE: Biorheology (1971), 7(3), 177-87
CODEN: BRHLAU; ISSN: 0006-355X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Determination of the intrinsic viscosity of cattle synovial fluid, and of hyaluronic acid prepns., from the data obtained with a semimicro viscometer operated in the conventional manner (Newtonian fluid behavior and shear stress of 8.1 dynes/cm2) yielded results % lower than when the data were treated for non-Newtonian fluid behavior and extrapolated to zero shear conditions. Hyaluronic acid from several sources, prepared by 2 different purification procedures, yielded values of Huggins' constant between 0.14 and 0.17, when the calcns. were made under zero shear conditions. The value of k1 appeared to be independent of intrinsic viscosity. The intrinsic viscosity of hyaluronic acid prepared from synovial fluid of patients with rheumatoid arthritis was about half that of hyaluronic acid prepared from normal synovial fluid.

L12 ANSWER 10 OF 11 MEDLINE on STN
ACCESSION NUMBER: 2006026748 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16412934
TITLE: New classification of ophthalmic viscosurgical devices--2005.
AUTHOR: Arshinoff Steve A; Jafari Masoud
CORPORATE SOURCE: York Finch Eye Associates, Humber River Regional Hospital, Toronto, Ontario, Canada.. saaeyes@idirect.com
SOURCE: Journal of cataract and refractive surgery, (2005 Nov) Vol. 31, No. 11, pp. 2167-71.
Journal code: 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200603
ENTRY DATE: Entered STN: 18 Jan 2006
Last Updated on STN: 22 Mar 2006
Entered Medline: 21 Mar 2006

AB PURPOSE: To revise the generally accepted classification of ophthalmic viscosurgical devices (OVDs) to include cohesion data and the new class of viscous dispersive OVDs. SETTING: York Finch Eye Associates, Toronto, Ontario, Canada, and Alcon Research Limited, Fort Worth, Texas, USA. METHODS: Pseudoplasticity and cohesion-dispersion (CDI) data of DisCoVisc (hyaluronic acid 1.6%-chondroitin sulfate 4%), a new viscous dispersive OVD, were determined and compared with existing OVDs. The existing classification of OVDs was unable to accommodate its properties, so the classification was modified to include a new class and other potential new classes which currently remain unoccupied. RESULTS: Current OVD classification, although based on the clinically significant rheologic parameters of zero-shear viscosity and cohesion, only uses zero-shear viscosity because of the high correlation of these 2 parameters in existing OVDs. The appearance of DisCoVisc forces modification of the existing scheme because it does not fit into a preexisting category. The new proposed broadened classification is changed from a 1-dimensional list into a 2-dimensional table and considers CDI independently from viscosity for all OVDs. Expansion of the classification of OVDs in this manner predicts further possible new innovative OVDs for surgical use. CONCLUSION: The surgical behavior of OVDs can be predicted by their position in a classification of OVDs based upon zero-shear viscosity and cohesion.

L12 ANSWER 11 OF 11 MEDLINE on STN
ACCESSION NUMBER: 71177047 MEDLINE
DOCUMENT NUMBER: PubMed ID: 5555228
TITLE: The pseudoplastic behavior of aqueous solutions of hyaluronic acid.

AUTHOR: Johnson R S; Niedermeier W; Bobo P
SOURCE: Biorheology, (1971 Jan) Vol. 7, No. 3, pp. 177-87.
Journal code: 0372526. ISSN: 0006-355X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197106
ENTRY DATE: Entered STN: 1 Jan 1990
Last Updated on STN: 1 Jan 1990
Entered Medline: 18 Jun 1971

L13 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1050844 CAPLUS
DOCUMENT NUMBER: 143:332659
TITLE: Viscoelastic compositions containing free radical scavenger and viscoelastic polymer, methods of use and packaging
INVENTOR(S): Bucolo, Claudio; Cro, Melina G.; Maltese, Adriana L. A.; Jani, Dharmendra M.
PATENT ASSIGNEE(S): Italy
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005215516	A1	20050929	US 2004-812551	20040329
CA 2560943	AA	20051020	CA 2005-2560943	20050322
WO 2005097226	A1	20051020	WO 2005-US9512	20050322

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-812551 A 20040329
WO 2005-US9512 W 20050322

AB The present invention is directed to a viscoelastic composition comprising an aqueous solution having a min. of about 0.01% weight/volume and a maximum of about 20% weight/volume of a viscoelastic polymer based upon the total volume of the viscoelastic composition Typically, the viscoelastic composition further contains tris[hydroxymethyl]aminometha ne and a polyol. The present invention also includes methods of use of the new viscoelastic composition and a packaging device. Thus, viscoelastic composition was prepared containing hyaluronic acid 2.3%, hydroxypropyl methylcellulose 0.8%, sorbitol 4.4%, tris-[hydroxymethyl]aminomethane 20 mM and water to 100%. The formulation containing combination of tris-[hydroxymethyl]aminomethane and sorbitol had best free radical quenching properties.

L13 ANSWER 2 OF 3 MEDLINE on STN
ACCESSION NUMBER: 2000147423 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10683799
TITLE: Ultrasonic transmission in viscoelastic substances.
AUTHOR: Frohn A; Dick H B; Fritzen C P; Breitenbach M; Thiel H J
CORPORATE SOURCE: University Eye Hospital Tubingen, Germany.
SOURCE: Journal of cataract and refractive surgery, (2000 Feb) Vol. 26, No. 2, pp. 282-6.
Journal code: 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003

ENTRY DATE: Entered STN: 27 Mar 2000
Last Updated on STN: 27 Mar 2000
Entered Medline: 13 Mar 2000

AB PURPOSE: To study the propagation of ultrasonic shock waves in viscoelastic agents and the resulting corneal load. SETTING: University Siegen, Institute for Mechanics and Control Engineering, Siegen, Germany. METHODS: The anterior chamber of a manufactured artificial eye was constructed according to anatomic dimensions. Three openings were drilled--for the phaco tip, for the exchange of a viscoelastic agent or water, and for the shock-wave sensor. The sensor was fixed to the area corresponding to the corneal apex. The sensor signal was analyzed using a direct oscilloscope that measured the amplitude reaching the corneal apex. Shock-wave propagation in several viscoelastic agents was compared with that in balanced salt solution. RESULTS: In hydroxypropyl methylcellulose, the shock wave was amplified or influenced slightly. In hyaluronic-acid preparations, acoustic dampening occurred. CONCLUSION: Removal of hyaluronic-acid derivatives prior to phacoemulsification is not necessary.

L13 ANSWER 3 OF 3 MEDLINE on STN
ACCESSION NUMBER: 95060616 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7970538
TITLE: Postoperative intraocular pressure changes with use of different viscoelastics.
AUTHOR: Dada V K; Sindhu N; Sachdev M S
CORPORATE SOURCE: Department of Ophthalmology, Dr Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi.
SOURCE: Ophthalmic surgery, (1994 Aug) Vol. 25, No. 8, pp. 540-4. Journal code: 0241035. ISSN: 0022-023X.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL) Journal; Article; (JOURNAL ARTICLE) (RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 10 Jan 1995
Last Updated on STN: 10 Jan 1995
Entered Medline: 29 Dec 1994

AB Sixty eyes with age-related cataract underwent extracapsular cataract extraction (ECCE) with posterior chamber intraocular lens (PC-IOL) implantation under similar conditions using hydroxypropyl methylcellulose (HPMC) (Oculose) (n = 20), sodium hyaluronate (Healon) (n = 20), or hyaluronic acid (IAL) (n = 20) as the viscoelastic (VE). Postoperative evaluation was performed for intraocular pressure (IOP), corneal thickness, and anterior chamber reaction at 6, 24, 48, 72 hours, and 10 days. Statistically-significant rises in IOP with IAL and Healon were observed at 6 and 24 hours; no such rises were observed with Oculose ($P < .05$). Seven eyes in the IAL group and six in the Healon group had IOPs greater than 22 mm Hg at 6 hours (range: 22 to 38 mm Hg and 22 to 28 mm Hg, respectively). A significant increase in average corneal thickness was observed in all of the 60 patients at 6 hours (18.5%). The average thickness decreased to 6.8% by day 10, with no intergroup variations. There were significantly fewer anterior chamber cells at 6 hours in the Healon group. We conclude that all three viscoelastics are equally useful for routine ECCE with PC-IOL implantation. However, IAL and Healon do cause an early postoperative IOP increase, which, though transient, should be treated.

L14 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:1112863 CAPLUS
TITLE: Optical gel composition comprising sodium hyaluronate and preparation thereof
INVENTOR(S): Zhu, Zhengming; Chen, Peili; Wu, Xuqiong; Xia, Lingyun; Shi, Jianguo
PATENT ASSIGNEE(S): Xi'nyi Pharmaceutical Plant, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 16pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1846787	A	20061018	CN 2005-10025018	20050411

PRIORITY APPLN. INFO.: CN 2005-10025018 20050411

AB The optical gel composition comprises sodium hyaluronate 0.51-2.0, other effective constituent(antibacterial agent and/or anti-inflammatory agent) 0.05-2, osmoregulator 0.1-1.5, pH regulator, antiseptic 0.01-0.5w/v% and aqua solvent. The gel composition is prepared by heating distilled water to 80-90°, adding sodium hyaluronate under stirring and heating, cooling, standing till sodium hyaluronate is swelled, mixing with other raw materials to obtain the product.

L14 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:516835 CAPLUS
DOCUMENT NUMBER: 144:495426
TITLE: Preparation and uses of viscoelastic solutions containing sodium hyaluronate and hydroxypropylmethyl cellulose,
INVENTOR(S): Lebreton, Pierre
PATENT ASSIGNEE(S): Corneal Industrie, Fr.
SOURCE: Fr. Demande, 16 pp. CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2878444	A1	20060602	FR 2004-12662	20041130
WO 2006059029	A2	20060608	WO 2005-FR50996	20051128
WO 2006059029	A3	20060831		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: FR 2004-12662 A 20041130

AB Preparation and use of biocompatible viscoelastic aqueous solns. based on a mixture of sodium hyaluronate (I) and hydroxypropylmethyl cellulose (II) containing from 1 to 2 % in weight of at least a sodium

hyaluronate with average mol. weight of 1.106 g/mL and 3.5.106 g/mol; and from 0.2 to 1 % in weight of at least a hydroxypropylmethyl cellulose with average mol. weight between 10.000 g/mol and 110.000 g/mol; as temporary surgical and hydration implants are disclosed. A solution contained I 1.28, and II 417%. The viscosity of the composition was 417
Pa.s.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:406169 CAPLUS
DOCUMENT NUMBER: 145:89842
TITLE: Ophthalmic or in vivo gel and its preparation
INVENTOR(S): Zhu, Yanggen; Xin, Jiyue; Xu, Lixin; Xu, Wenying; Huang, Zhiyuan
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1762385	A	20060426	CN 2005-10109453	20051021
PRIORITY APPLN. INFO.:			CN 2005-10109453	20051021

AB The ophthalmic or in vivo gel contains basic ingredient (pearly layer powder water extract 0.01-500 mL, borneol 0.01-10 g, borax 0.2-6 g, boric acid 5-30 g, ethanol 2.0-20 mL, gel matrix 0.1-300 g, glycerol 0.01-10 mL), and accessory (osmoregulator 0.02-20 g, antimicrobial agent 0.001-20 mL) and addnl. injection water to 1000 mL. The accessory may contain pH regulator, such as borax, boric acid, sodium dihydrogen phosphate, disodium hydrogen phosphate, acetic acid, sodium acetate, sodium hydroxide, hydrochloric acid, citric acid and/or sodium citrate. The osmoregulator is sodium chloride, glucose, borax, boric acid, mannitol and/or glycerol; antimicrobial agent is phenoxyethanol, hydroxybenzoate, sorbic acid and/or trichloro-tert-butanol; gel matrix is poloxamer, carbomer, polyvinyl alc., povidone, sodium CM-cellulose, Me cellulose, hydroxyethyl cellulose, sodium hyaluronate, polyethylene glycol and/or hydroxypropylmethyl cellulose. The gel is prepared by adding borax, boric acid and osmoregulator in water, heating, stirring, adding antimicrobial agent and pearl layer extract, mixing, heating to 40-120° for 10-50 min, adding glycerol, cooling, adding water to fix volume, dissolving borneol in ethanol, adding to the above solution, mixing, filtrating, cooling filter liquor to 1-13°, adding gel matrix to filter liquor under stirring, mixing, stewing for 20-50°, sieving.

L14 ANSWER 4 OF 5 MEDLINE on STN
ACCESSION NUMBER: 2006270801 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16670478
TITLE: Femtosecond laser preparation of donor tissue from the endothelial side.
AUTHOR: Sikder Shameema; Snyder Robert W
CORPORATE SOURCE: University of Arizona, College of Medicine, Tucson, AZ, USA.
CONTRACT NUMBER: T35 HL07479 (NHLBI)
SOURCE: Cornea, (2006 May) Vol. 25, No. 4, pp. 416-22. Journal code: 8216186. ISSN: 0277-3740.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 200606
ENTRY DATE: Entered STN: 17 May 2006
Last Updated on STN: 16 Jun 2006
Entered Medline: 15 Jun 2006

AB PURPOSE: The femtosecond laser (Intralase) may provide advantages for dissecting a thin, uniform thickness posterior lamellar disk of donor tissue to be used for endothelial transplantation. We investigated the use of the Intralase to dissect the donor cornea from the posterior side to better obtain a thin and uniform lamellar disk. We investigated the use of a viscoelastic "cushion" to protect the endothelium during applanation and laser delivery. METHODS: Human eye bank donor buttons were placed endothelial side up, covered with a thin coat of viscoelastic, and brought into contact with the Intralase applanation lens. A 7-mm diameter, 100-microm lamellar disk was cut from the endothelial side. The endothelial viability after these procedures was determined using a live cell/dead cell assay. Controls were designed to assess the endothelial viability after applanation and laser application using only a balanced salt solution (BSS) cushion instead of viscoelastic material. Additionally, applanation without lasering using either BSS or a viscoelastic cushion was studied. RESULTS: The average endothelial cell loss in the laser experiment sets were 10% (n = 5, range of 4-17%, Sodium Hyaluronate), 14% (n = 5, range of 7-19%, Sodium Hyaluronate-Sodium Chondroitin) and 6% (n = 5, range of 3-11%, Hydroxypropylmethyl-cellulose). In the controls, laser and applanation with BSS resulted in an average endothelial loss of 18% (n = 5, range of 14-26%). Applanation alone without laser dissection resulted in cell loss of 9% (n = 5, range of 7-12%) using BSS and 9% (n = 6, range 1-42%) Hydroxypropylmethyl-cellulose. CONCLUSIONS: The technique of using a viscoelastic "cushion" to protect endothelial cells from damage during posterior laser dissection prior to transplantation is promising. Viscoelastic coating protects the endothelial layer from damage from the coupling lens better than a layer of BSS. The lasering process, however, causes damage in addition to applanation with the laser lens. Further studies are warranted to optimize reproducibility of endothelial cell survival and evaluate the smoothness of stromal dissections in the posterior cornea.

L14 ANSWER 5 OF 5 MEDLINE on STN
ACCESSION NUMBER: 91171149 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2005554
TITLE: Prospective comparison of the effects of Occucoat, Viscoat, and Healon on intraocular pressure and endothelial cell loss.
AUTHOR: Lane S S; Naylor D W; Kullerstrand L J; Knauth K; Lindstrom R L
CORPORATE SOURCE: Ophthalmology Section, Veteran's Affairs Medical Center, Minneapolis, Minnesota 55417.
SOURCE: Journal of cataract and refractive surgery, (1991 Jan) Vol. 17, No. 1, pp. 21-6.
Journal code: 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199104
ENTRY DATE: Entered STN: 12 May 1991
Last Updated on STN: 6 Feb 1995
Entered Medline: 24 Apr 1991

AB We compared the effect of Occucoat (2% hydroxypropylmethyl-cellulose), Viscoat (sodium hyaluronate-chondroitin sulfate), and Healon (sodium hyaluronate) on postoperative

intraocular pressure (IOP) and endothelial cell damage. One hundred fourteen patients having planned extracapsular cataract extraction with posterior chamber lens implantation using a viscomaterial were prospectively randomized into one of five groups. Group I received Occucoat which was removed from the anterior chamber at the conclusion of surgery. Group II received Occucoat which was not removed (retained). Group III received Viscoat which was removed, Group IV received Viscoat which was retained, and Group V received Healon which was removed. No prophylactic ocular hypotensive medications were given. Intraocular pressure was measured at four hours, 24 hours, one week, one month, three months, and one year postoperatively. Compared to preoperative IOP, all groups had a significant IOP increase at four hours. All but the Viscoat removed group (Group III) showed a statistically significant increase at 24 hours postoperatively (P less than .05). No group had a significant increase at one week or later. Specular microscopy showed no significant difference in cell loss between any of the groups at three months or within each group when compared to preoperative cell counts (P greater than .1).

L15 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:624967 CAPLUS
DOCUMENT NUMBER: 145:278190
TITLE: Gels containing combination of asiaticoside and sodium hyaluronate for promoting wound healing
INVENTOR(S): Cui, Ming; Gu, Min
PATENT ASSIGNEE(S): Shanghai Institute of Pharmaceutical Industry, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1788733	A	20060621	CN 2004-10093221	20041217

PRIORITY APPLN. INFO.: CN 2004-10093221 20041217

AB The gel drops and sprays are comprised of asiaticoside and sodium hyaluronate. The weight ratio of asiaticoside and sodium hyaluronate is 1:1-8:1. The medical adjuvant is gel matrix, preservative, refrigerant, and stabilizing agent. The gel matrix is carbomer, Me cellulose, sodium CM-cellulose or calcium CM-cellulose, hydroxyethyl Me cellulose, hydroxypropyl Me cellulose, polyvinyl alc., tragacanth, or alginic acid and its salt. The preservative is p-hydroxybenzoate, quaternary ammonium salt, alc., organic benzene, benzoic acid, or sorbic acid. The refrigerant is borneol, or menthol. The stabilizing agent is disodium ethylene diamine tetraacetate, tween-80, ethanol, glycerol, propylene glycol, or polyethylene glycol. The production process consists of dissolving a dose of asiaticoside in the distilled water containing stabilizing agent and refrigerant, and sterile treating; dissolving sodium hyaluronate in the solution containing preservative, and storing; adding the solution of asiaticoside to the solution of sodium hyaluronate while stirring; dispersing gel matrix in the distilled water, adjusting pH till neutrality; mixing and subpackaging. The patent relates to the application of active ingredient of asiaticoside and sodium hyaluronate to prepare the medical preparation for treating trauma.

L15 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:620048 CAPLUS
DOCUMENT NUMBER: 145:383425
TITLE: A novel dosage form suitable for buccal administration and its preparation method
INVENTOR(S): Tang, Zefen
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 3 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1788718	A	20060621	CN 2004-10104073	20041214

PRIORITY APPLN. INFO.: CN 2004-10104073 20041214

AB The invention provides confection dosage form suitable for buccal administration, which is implemented by mixing drug active ingredient with melted sweetener (such as sucrose) and molding. The drug active ingredient may be extract of single or compound Chinese medicinal prescription, effective fraction of Chinese medicinal material, or chemical drug. Compared with the conventional sugared buccal tablet or granule, the confection has

the advantages of increased content of active ingredient, long action time in oral cavity, well-masked bitter taste, and improved sustained-release effect.

L15 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:983601 CAPLUS
DOCUMENT NUMBER: 143:272523
TITLE: Stable ophthalmic oil-in-water emulsions containing sodium hyaluronate for alleviating dry eye
INVENTOR(S): Yu, Zhi-Jian; Huth, Stanley W.; Crawford, Lauren L.; Cook, James N.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. Ser. No. 802,153.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005196370	A1	20050908	US 2005-98827	20050404
US 2004185068	A1	20040923	US 2003-392375	20030318
US 2004191284	A1	20040930	US 2004-802153	20040317
WO 2006107330	A1	20061012	WO 2005-US34055	20050923
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2006251685	A1	20061109	US 2006-418486	20060503

PRIORITY APPLN. INFO.: US 2003-392375 A2 20030318
US 2004-802153 A2 20040317
US 2005-98827 A 20050404

AB Stable oil-in-water emulsions are described which contain a demulcent for the treatment of dry eye such as sodium hyaluronate. The oil-in-water emulsions are stable and have anti-microbial activity sufficient for use as contact lens disinfecting solns. Thus, an emulsion contained sodium chlorite 65 and WSCP 3 ppm, sodium hyaluronate 0.1, castor oil 1.25, ethoxylated hydrogenated castor oil 1, boric acid 0.6, sodium borate decahydrate 0.035, calcium chloride dihydrate 0.006, MgCl2.6H2O 0.006, KCl 0.14, NaCl 3.5, and water qs to 100%.

L15 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:570851 CAPLUS
DOCUMENT NUMBER: 139:122862
TITLE: Hyaluronate-based viscoelastics for ocular surgery
INVENTOR(S): Shah, Mandar V.
PATENT ASSIGNEE(S): Alcon, Inc., Switz.
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003059391	A2	20030724	WO 2002-US41247	20021220
WO 2003059391	A3	20040219		
W: AU, BR, CA, JP, KR, MX, US, ZA				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
AU 2002360752	A1	20030730	AU 2002-360752	20021220
US 2004118414	A1	20040624	US 2003-380135	20030311
US 2004241155	A1	20041202	US 2004-882923	20040630
PRIORITY APPLN. INFO.:			US 2001-342916P P	20011221
			WO 2002-US41247 W	20021220
			US 2003-380135 A2	20030311

AB Disclosed are surface modified viscoelastics and methods of performing viscosurgery using polymer-containing irrigating solution to reduce cohesiveness of the viscoelastic agent at the interface, thereby improving its performance by reducing the occurrence of unintentional aspiration, especially in ocular surgery. For example, upon dilution of 1.0% sodium hyaluronate (Provisc) solution with BSS Plus solution in a 1:1 ratio, the viscosity drops exponentially. When 2% of chondroitin sulfate was present in the irrigating solution, viscosity was almost twice that when chondroitin sulfate was not present in the solution, i.e., two times, that of the control.

L15 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:691397 CAPLUS
DOCUMENT NUMBER: 137:206582
TITLE: Ophthalmic irrigation solutions containing hyaluronate
INVENTOR(S): Okada, Masashi; Nakamura, Shigeru; Saito, Fumio
PATENT ASSIGNEE(S): Ophtecs Corporation, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002255829	A2	20020911	JP 2001-391544	20011225
JP 3455852	B2	20031014		
PRIORITY APPLN. INFO.:			JP 2000-395599 A	20001226

AB This invention relates to eye-washing solns. containing hyaluronic acid or its salts and hydrophilic polymers to protect the tear layer. The solns. restore the tear layer which can be destroyed while swimming in the pool. For example, an ophthalmic solution contained NaCl 0.74, KCl 0.13, NaH2PO4 0.03, Na2HPO4 0.113, hydroxyethyl cellulose 0.2, Na hyaluronate 0.02, and distilled water balance to 100 %.

L15 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:408512 CAPLUS
DOCUMENT NUMBER: 136:406869
TITLE: Sodium hyaluronate microspheres
INVENTOR(S): Dehazya, Philip; Lu, Cheng
PATENT ASSIGNEE(S): Clear Solutions Biotech, Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002041877 A1 20020530 WO 2001-US50183 20011024
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2002039697 A5 20020603 AU 2002-39697 20011024
US 2003096734 A1 20030522 US 2002-310629 20021205
US 2004127459 A1 20040701 US 2003-649082 20030826
US 6969531 B2 20051129
PRIORITY APPLN. INFO.: US 2000-695445 A 20001024
WO 2001-US50183 W 20011024
US 2002-310629 B1 20021205

AB The present invention relates to microspheres comprising hyaluronan derivatized with a bifunctional crosslinker to form microspheres. Methods of making such microspheres, comprising mixing hyaluronic acid and a dihydrazide crosslinker in an aqueous solution, adding a solvent and an emulsifying agent to form an emulsion, and lowering the pH of the emulsion to allow intramol. and intermolucular crosslinking to occur, are also disclosed. The invention also provides for pharmaceutical or cosmetic foundations based on the microspheres described herein, further containing one or more active or cosmetic agents, and methods of using such formulations.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 1 OF 1 MEDLINE on STN
ACCESSION NUMBER: 91088176 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2263384
TITLE: [Elimination of viscoelastic substances from the vitreous cavity. Comparative study of sodium hyaluronate and hydroxypropylmethylcellulose].
Elimination de substances visco-elastiques hors de la cavite vitreenne. Etude comparative entre l' hyaluronate sodique et l'hydroxy-propyl-methyl-cellulose.
AUTHOR: Fernandez-Vigo J; Sabugal J F; Diaz J A; Concheiro A; Martinez R
CORPORATE SOURCE: Departamento de Oftalmologia, Universidad de Santiago de Compostela, Espana.
SOURCE: Ophtalmologie : organe de la Societe francaise d'ophtalmologie, (1990 Jul-Aug) Vol. 4, No. 4, pp. 333-6.
Journal code: 8900549. ISSN: 0989-3105.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199102
ENTRY DATE: Entered STN: 22 Mar 1991
Last Updated on STN: 22 Mar 1991
Entered Medline: 4 Feb 1991

AB We study the elimination of two viscoelastic substances from the vitreous cavity: the Hydroxypropyl Methylcellulose and the Sodium Hyaluronate that are potentially vitreous substitutes. We performed gas-vitrectomy in 116 eyes of 58 rabbits. Three days after surgery we performed gas-viscoelastic substance exchange. We analyzed the concentration of Hydroxypropyl Methylcellulose and Sodium Hyaluronate with diphenylamine reaction at different periods: zero, 1 week, 2 weeks, 1 month till 6 months. In both cases the elimination is fast so that 1 week after the intravitreal injection remains only 60.1% of the Hydroxypropyl Methylcellulose and 100% of Sodium Hyaluronate, and two weeks after 38.5% of Hydroxypropyl Methylcellulose and 62.5% of Sodium Hyaluronate. We conclude that both substances have a short half life-time specially in the case of the Hydroxypropyl Methylcellulose.

L19 ANSWER 1 OF 2 MEDLINE on STN
ACCESSION NUMBER: 2006270801 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16670478
TITLE: Femtosecond laser preparation of donor tissue from the endothelial side.
AUTHOR: Sikder Shameema; Snyder Robert W
CORPORATE SOURCE: University of Arizona, College of Medicine, Tucson, AZ, USA.
CONTRACT NUMBER: T35 HL07479 (NHLBI)
SOURCE: Cornea, (2006 May) Vol. 25, No. 4, pp. 416-22.
Journal code: 8216186. ISSN: 0277-3740.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200606
ENTRY DATE: Entered STN: 17 May 2006
Last Updated on STN: 16 Jun 2006
Entered Medline: 15 Jun 2006

AB PURPOSE: The femtosecond laser (Intralase) may provide advantages for dissecting a thin, uniform thickness posterior lamellar disk of donor tissue to be used for endothelial transplantation. We investigated the use of the Intralase to dissect the donor cornea from the posterior side to better obtain a thin and uniform lamellar disk. We investigated the use of a viscoelastic "cushion" to protect the endothelium during applanation and laser delivery. METHODS: Human eye bank donor buttons were placed endothelial side up, covered with a thin coat of viscoelastic, and brought into contact with the Intralase applanation lens. A 7-mm diameter, 100-microm lamellar disk was cut from the endothelial side. The endothelial viability after these procedures was determined using a live cell/dead cell assay. Controls were designed to assess the endothelial viability after applanation and laser application using only a balanced salt solution (BSS) cushion instead of viscoelastic material. Additionally, applanation without lasering using either BSS or a viscoelastic cushion was studied. RESULTS: The average endothelial cell loss in the laser experiment sets were 10% (n = 5, range of 4-17%, Sodium Hyaluronate), 14% (n = 5, range of 7-19%, Sodium Hyaluronate-Sodium Chondroitin) and 6% (n = 5, range of 3-11%, Hydroxypropylmethyl-cellulose). In the controls, laser and applanation with BSS resulted in an average endothelial loss of 18% (n = 5, range of 14-26%). Applanation alone without laser dissection resulted in cell loss of 9% (n = 5, range of 7-12%) using BSS and 9% (n = 6, range 1-42%) Hydroxypropylmethyl -cellulose. CONCLUSIONS: The technique of using a viscoelastic "cushion" to protect endothelial cells from damage during posterior laser dissection prior to transplantation is promising. Viscoelastic coating protects the endothelial layer from damage from the coupling lens better than a layer of BSS. The lasering process, however, causes damage in addition to applanation with the laser lens. Further studies are warranted to optimize reproducibility of endothelial cell survival and evaluate the smoothness of stromal dissections in the posterior cornea.

L19 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 92098001 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1757027
TITLE: [Controlled clinical study of two viscoelastic substances]. Kontrollierte klinische Studie zweier viskoelastischer Substanzen.
AUTHOR: Kammann J; Dornbach G; Vollenberg C; Hille P
CORPORATE SOURCE: Abteilung Augenheilkunde, St.-Johannes-Hospital, Dortmund 1, Bundesrepublik Deutschland.
SOURCE: Fortschritte der Ophthalmologie : Zeitschrift der Deutschen

Ophthalmologischen Gesellschaft, (1991) Vol. 88, No. 5, pp. 438-41.
Journal code: 8302807. ISSN: 0723-8045.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: (CLINICAL TRIAL)
(CONTROLLED CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199202
ENTRY DATE: Entered STN: 23 Feb 1992
Last Updated on STN: 10 Dec 2002
Entered Medline: 3 Feb 1992

AB Viscoelastic substances in correlation with intraocular hypotony have gained great significance in low-irritation cataract surgery within the last few years. The differences in their chemical properties, and thus in their effect on the eye, formed the grounds for a controlled clinical study comparing sodium hyaluronic acid, representing the group of glucosamine glykanes, and hydroxypropylmethyl cellulose (HPMC), representing the group of cellulose ethers. Two hundred cataract patients, excluding those suffering from diabetes mellitus, glaucoma and severe corneal damage, were examined on the 1st, 2nd and 5th postoperative day, as well as 4 weeks postoperatively. Statistically, no significant differences were found as regards IOP and postoperative anterior chamber irritation. From the economical point of view, methocel (HPMC) should be preferred to sodium hyaluronic acid in routine cataract surgery due to the lower costs.

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     (FILE 'HOME' ENTERED AT 17:57:15 ON 07 DEC 2006)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 17:57:38 ON 07 DEC 2006
L1             9 S HYALURONIC ACID? (P) ?HYDROXYPROPYLMETHYLCELLULOSE?
L2             2 S HYALURONIC ACID? (P) ?HYDROXYPROPYLMETHYL CELLULOSE?
L3             6 S HYALURONIC ACID? (P) ?HYDROXYPROPYL METHYL CELLULOSE?
L4            10 S HYALURONIC ACID? (P) ?HYDROXYPROPYL METHYLCELLULOSE?
L5             0 S HYALURONIC ACID? (P) ?HYDROXY PROPYLMETHYLCELLULOSE?
L6             2 S HYALURONIC ACID? (P) ?HYDROXY PROPYL METHYL CELLULOSE?
L7             0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXYPROPYLMETHYLCELLULO
L8             0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXYPROPYLMETHYL CELLUL
L9             0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXY PROPYLMETHYL CELLU
L10            0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXYPROPYLMETHYL CELLUL
L11            0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXY PROPYLMETHYLCELLUL
L12           11 S HYALURONIC ACID? (P) PSEUDOPLAST?
L13            3 S L4 AND VISCOELAST?
L14            5 S HYALURONATE (P) ?HYDROXYPROPYLMETHYL CELLULOSE?
L15            6 S HYALURONATE (P) ?HYDROXYPROPYL METHYL CELLULOSE?
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L17            0 S HYALURONATE (P) ?HYDROXY PROPYL METHYLCELLULOSE?
L18           39 S HYALURONIC ACID? (P) VISCOELAST? (P) EYE?
L19            2 S HYDROXYPROPYLMETHYL CELLULOSE (P) VISCOELAST? (P) EYE?
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     (FILE 'HOME' ENTERED AT 17:57:15 ON 07 DEC 2006)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 17:57:38 ON 07 DEC 2006
L1             9 S HYALURONIC ACID? (P) ?HYDROXYPROPYLMETHYLCELLULOSE?
L2             2 S HYALURONIC ACID? (P) ?HYDROXYPROPYLMETHYL CELLULOSE?
L3             6 S HYALURONIC ACID? (P) ?HYDROXYPROPYL METHYL CELLULOSE?
L4            10 S HYALURONIC ACID? (P) ?HYDROXYPROPYL METHYLCELLULOSE?
L5             0 S HYALURONIC ACID? (P) ?HYDROXY PROPYLMETHYLCELLULOSE?
L6             2 S HYALURONIC ACID? (P) ?HYDROXY PROPYL METHYL CELLULOSE?
L7             0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXYPROPYLMETHYLCELLULO
L8             0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXYPROPYLMETHYL CELLUL
L9             0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXY PROPYLMETHYL CELLU
L10            0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXYPROPYLMETHYL CELLUL
L11            0 S HYALURONIC ACID? (P) PSEUDOPLAST? ?HYDROXY PROPYLMETHYLCELLUL
L12           11 S HYALURONIC ACID? (P) PSEUDOPLAST?
L13            3 S L4 AND VISCOELAST?
L14            5 S HYALURONATE (P) ?HYDROXYPROPYLMETHYL CELLULOSE?
L15            6 S HYALURONATE (P) ?HYDROXYPROPYL METHYL CELLULOSE?
L16            1 S HYALURONATE (P) ?HYDROXY PROPYL METHYL CELLULOSE?
L17            0 S HYALURONATE (P) ?HYDROXY PROPYL METHYLCELLULOSE?
L18           39 S HYALURONIC ACID? (P) VISCOELAST? (P) EYE?
L19            2 S HYDROXYPROPYLMETHYL CELLULOSE (P) VISCOELAST? (P) EYE?
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